U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Valley Pike VOC Site - Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: **POLREP #5**
Progress
Valley Pike VOC Site

Riverside, OH
Latitude: 39.7975660 Longitude: -84.1320980

To:
Sherry Fielding, U.S. EPA
Jason El-Zein, U.S. EPA
Sam Borries, U.S. EPA
Mark Durno, U.S. EPA
Richard Murawski, EPA
John Glover, U.S. EPA
Valencia Darby, Department of Interior
Carol Ropski, U.S. EPA
Mark Johnson, ATSDR - Region 5
Tracy Johnson, U.S. EPA
Ginny Narsette, EPA
Kevin Clouse, Ohio EPA
Scott Shane, Ohio EPA
Scott Glum, Ohio EPA
Bob Frey, Ohio Department of Health
Greg Stein, Ohio Department of Health
Tom Hut, Public Health Dayton Montgomery County
Greg King, Public Health Dayton Montgomery County
Brian Chodkowski, City Manager - City of Riverside
Steve Fullenkamp, City of Riverside
Shirley Reynolds, City of Riverside
Ginny Narsete, EPA 5
Lauren Foster, TT START
Matt Mankowski, EPA 5
Michelle Colledge, ATSDR
Jim Mehl, Ohio EPA
Maureen O'Neill, EPA CI
Aaron Price, EPA CI
Patrick Hamblin, EPA Pre-Remedial

From: Steven Renninger, On-Scene Coordinator
Date: 10/28/2014
Reporting Period: July 19 through October 28, 2014

1. Introduction

1.1 Background

Site Number:	C5U2	**Contract Number:**	EP-S5-08-02
D.O. Number:	30281.0134	**Action Memo Date:**	9/16/2014
Response Authority:	CERCLA	**Response Type:**	Time-Critical
Response Lead:	EPA	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	12/9/2013	**Start Date:**	12/9/2013
Demob Date:		**Completion Date:**	
CERCLIS ID:		**RCRIS ID:**	
ERNS No.:		**State Notification:**	OEPA
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category

Time-Critical Removal Action

1.1.2 Site Description

Ohio EPA Site Inspection - November 2010

In November 2010, Ohio EPA conducted a Site Inspection at Mullins Rubber Products (MRP) facility on Valley Pike in Riverside, Ohio, and noted the flow of groundwater is to the south and southwest of a potential source area for PCE and TCE groundwater contamination. Six groundwater samples were collected using the Geoprobe® direct-push technology. The active deep production well was sampled, along with dry well number DW-2, which received cooling water from the MRP degreasing tanks. Ohio EPA documented PCE and TCE contamination in the active production well and dry wells area in the November 2010 sampling.

Ohio EPA Expanded Site Inspection - December 2011

In December 2011, Ohio EPA conducted an Expanded Site Inspection (ESI) at MRP. Three Geoprobe monitoring wells were installed. ESI samples documented PCE and TCE in both shallow and deep aquifers.

Ohio EPA Supplemental Expanded Site Inspection - March 2013

In March 2013, Ohio EPA conducted a Supplemental Expanded Site Inspection (SESI) at MRP. SESI sampling results showed significant detections of TCE and PCE in the shallow sand and gravel aquifer. The highest concentration of PCE in shallow groundwater was detected at MW-14 (soil boring SB-14 location), approximately 50 feet (ft) down-gradient of MRP. In addition, Ohio EPA observed PCE concentrations

ranging from 5 to 14,000 µg/L along the southwestern perimeter of MRP and non-detect to 31 µg/L along the northeastern perimeter (upgradient) of MRP.

Additionally, PCE was detected at a concentration of 1,500 µg/L at MW-4 in a residential area (corner of Bushnell and Hypathia Avenues) located 900 ft southwest of MRP. The detection of VOCs in the groundwater underlying this residential area, which is down-gradient of the source area, prompted Ohio EPA to request EPA removal assistance in May 2013 to investigate potential vapor intrusion at the Site.

In a letter dated May 9, 2013, the Ohio EPA expressed concerns about the risk to human health from indoor air exposure to VOCs from a shallow PCE and TCE groundwater plume. Ohio EPA viewed the Site as a potential threat to the residences and businesses located southwest of MRP.

On June 14, 2013, the Health Assessment Section of the ODH, under a Cooperative Agreement with the Agency for Toxic Substances and Disease Registry (ATSDR), provided health-based guidance to evaluate the results of vapor intrusion sub-slab and indoor air sampling for contaminants of concern at the Site.

ODH Sub-Slab Screening Levels (residential properties):
PCE = 60 ppbv
TCE = 4 ppbv

ODH Indoor Air Screening Levels (residential properties):
PCE = 6 ppbv
TCE = 0.4 ppbv

1.1.2.1 Location

The Valley Pike VOC Site is located in the residential area west and southwest of the source area, located at 2949 Valley Pike, in Riverside, Montgomery County, Ohio. The Site's geographic coordinates are 39° 47' 51.2376" North latitude and 84° 7' 55.5522" West longitude. The Site includes a PCE and TCE-contaminated groundwater plume flowing south and southwest of MRP into the adjacent residential area.

1.1.2.2 Description of Threat

The residential neighborhood located west and southwest of MRP is being impacted by PCE and/or TCE vapor intrusion. Vapor Intrusion is the subsurface migration of PCE and TCE vapors into the indoor air of residential properties at the Site. A completed exposure pathway for PCE and TCE vapor intrusion has been documented at numerous residential properties.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

In July and August 2013, EPA conducted a removal site assessment at the Site. The purpose of the site assessment was to determine if vapor intrusion was occurring in the residential neighborhood west and southwest of MRP and to evaluate the Site for a potential time-critical removal action. During the site assessment, EPA conducted the following activities:

- Analyzed four groundwater samples

- Collected nine soil gas samples
- Collected five sub-slab samples from residential properties and one sub-slab sample from a nonresidential property.
- Collected seven indoor air samples from residential properties and one indoor air sample from a nonresidential property.

Based on 2013 EPA data, the ODH concluded that a completed exposure pathway exists for vapor intrusion at the Site.

Based on the analytical results and Site conditions observed during the site assessment, the Site meets the criteria for a removal action pursuant to 40 CFR 300.415(b)(2) and poses an imminent and substantial threat to the public health or welfare of the United States or the environment.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

Since December 2013, EPA has been conducting a time critical removal action at the Site including air sampling at residences and if required, installation of a residential Vapor Intrusion mitigation system.

ODH Health Consultation - September 2013

On September 4, 2013, ODH, under a Cooperative Agreement with the Agency for Toxic Substances and Disease Registry (ATSDR), submitted a Letter Health Consultation to EPA. The Health Consultation assessed the data that EPA collected and discussed the public health implications of exposure to VOCs from vapor intrusion from the Site. The Health Consultation provided the following conclusions and recommendations:

Health Consultation Conclusions

1. A completed exposure pathway exists for vapor intrusion, as PCE has been detected as high as 20,000 ppb in the groundwater, 30,000 ppb in the soil gas, 8,200 ppb in the sub-slab soil gas, and 31 ppb in the indoor air at one residence. TCE has been detected as high as 47 ppb in the groundwater, 5,600 ppb in the soil gas, 160 ppb in the sub-slab soil gas, and 0.87 ppb in the indoor air at the same residential property.

2. More data is needed to conclude whether the vapor intrusion pathway could affect indoor air quality at other residential properties and harm people's health. At this time, only a few indoor air samples have been collected by EPA. Additionally, previous experience with vapor intrusion sites in the same general part of north Dayton have indicated potential for significant seasonal variation in soil gas levels under impacted homes.

Health Consultation Recommendations

1. Testing the indoor air of the other homes with high sub-slab results should be a priority. Other residences and businesses at risk of exposure via vapor intrusion pathway should have their sub-slab and indoor air sampled for PCE, TCE, and

degradation products cis-1,2-DCE and vinyl chloride. Sample collection during multiple seasons, including at least one sample in the winter, is recommended to characterize seasonal variability.

2. The full extent of the VOC contamination, both in groundwater and soil gas, associated with the Valley Pike VOC site should be determined.

2.1.2 Response Actions to Date

On December 9, 2013, the EPA Removal Action was initiated. An EPA Project Office was established at 2049 Harshman Road, Dayton, Ohio 45424. Between December 2013 and present, START conducted residential baseline sub-slab/indoor air sampling and ERRS initiated residential vapor abatement system (VAS) installations. EPA, local health department, and the City of Riverside representatives requested residents in the area of investigation to sign access agreements for EPA vapor intrusion sampling.

See POLREP 1 for actions between December 9, 2013 and January 17, 2014.
See POLREP 2 for actions between January 18 and March 14, 2014.
See POLREP 3 for actions between March 15 and May 15, 2014.
See POLREP 4 for actions between May 16 and July 18, 2014.

Week of July 21, 2014
EPA collected 10 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after VAS installation, or a seasonal resample.

The sub-slab, crawl space, and indoor air samples are being collected using pre-cleaned, laboratory-supplied, 6-liter SUMMA canisters. The SUMMA canisters are being fitted with flow regulators to allow sample collection over a 24-hour period. The samples are being analyzed for VOCs using EPA Method TO-15.

EPA contractors installed VAS at three residential properties.

Week of July 28, 2014
The site was shut down this week.
No residential vapor intrusion sampling was conducted this week, and no VAS were installed this week.

Week of August 4, 2014
EPA collected 13 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or a seasonal resample.

EPA installed VAS at four residential properties.

In August 2014, ATSDR completed a revised Health Consultation for the Site. The Health Consultation assessed the data that EPA collected in 2014 and discussed the public health implications of exposure to VOCs from vapor intrusion from the Site. The 2014 Health Consultation provided the following conclusions and recommendations:

2014 ATSDR Health Consultation Conclusions

1. A completed exposure pathway exists for the inhalation of indoor air contaminants which are likely entering some area homes via vapor intrusion. PCE has been detected as high as 20,000 ppb in the groundwater, 30,000 ppb in the deep soil gas, 27,300 ppb in the sub-slab soil gas under area homes, and as high as193 ppb in the indoor air in these homes. TCE has been detected as high as 47 ppb in the groundwater, 5,600 ppb in the soil gas, 1,020 ppb in the sub-slab soil gas, and 4.36 ppb in the indoor air. The detection of PCE and TCE in the sub-slab soil gas under some of the homes to the west of the MRP facility indicates that vapor intrusion is likely occurring. The presence of PCE and TCE in the indoor air of some of these homes confirms there is a completed pathway of exposure linking some area residents to site-related PCE and TCE via the vapor intrusion route.

2. Being exposed to the levels of PCE measured in some homes in the community over the course of a lifetime could harm people's health.

3. Being exposed to the levels of TCE measured in some homes in the community over the course of a lifetime could harm people's health.

4. Only about half of the homes potentially impacted by contaminated groundwater have been sampled. Furthermore, many homes have only been sampled one time. Thus, there is a great deal of uncertainty regarding the true magnitude of exposure in the community.

2014 ATSDR Health Consultation Recommendations

1. Determine the full extent of the contaminant threat under the neighborhood by expanding the sub-slab and indoor air sampling in homes west and southwest of the likely source area on Valley Pike.

2. Sample residences at risk of contamination via the vapor intrusion route. To characterize seasonal variability, sample collection during multiple seasons, including at least one sample during the winter months, is recommended.

3. Mitigate the homes in the vicinity of the Valley Pike VOC plume that exceed health-based comparison values for PCE and TCE in order to reduce or eliminate ongoing exposures to elevated levels of PCE and TCE in the indoor air over the short term.

4. Identify and mitigate or eliminate the source of the PCE and TCE in the groundwater contaminant plume that currently underlies the community in order to eliminate the threat to area residents over the long term.

Week of August 11, 2014
EPA collected 20 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or a seasonal resample.

EPA installed VAS at three residential properties.

Week of August 18, 2014
The site was shut down this week.

No residential vapor intrusion sampling was conducted this week, and no VAS were installed this week.

Week of August 25, 2014
EPA collected 16 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

EPA installed VAS at one residential property.

Week of September 1, 2014
EPA collected 11 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

EPA installed VAS at two residential properties.

EPA initiated planning for an October 2014 EPA Expanded Vapor Intrusion Investigation. Proposed locations for permanent groundwater monitoring wells around the commercial/industrial area northeast of the residential area of concern were identified.

Week of September 8 2014
EPA collected 9 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

EPA installed VAS at two residential properties.

Week of September 15, 2014
The site was shut down this week.
No residential vapor intrusion sampling was conducted this week, and no VAS were installed this week.

EPA 12 Month Exemption Action Memo approved by Superfund Division Director on September 16, 2014. EPA sampling and mitigation work at the Site will continue past December 2014.

Week of September 22, 2014
EPA collected 11 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

EPA installed VAS at two residential properties.

Week of September 29, 2014
EPA collected 5 residential vapor intrusion samples. The samples collected were either baseline samples, proficiency samples collected 30 days after the installation of VAS, or seasonal resamples.

EPA installed VAS at 1 residential properties.

Week of October 6, 2014
EPA installed 7 permanent groundwater monitoring wells as part of the October 2014 EPA Expanded Vapor Intrusion Investigation.

Week of October 13, 2014
EPA sampled permanent groundwater monitoring wells as part of the October 2014 EPA Expanded Vapor Intrusion Investigation.

Week of October 20, 2014
The site was shut down this week.
No residential vapor intrusion sampling was conducted this week, and no VAS were installed this week.

Week of October 28, 2014
EPA continued residential vapor intrusion sampling and VAS installation.

As of October 28, 2014, the following removal activities have been completed:
- 366 total residential properties with area of investigation (determined by groundwater investigation)
- 263 properties sampled
- 120 properties are eligible for sampling but have yet signed an access agreement
- 80 properties have results greater than ATSDR/ODH screening levels and are eligible for a VAS
- 70 properties currently have an installed VAS
- 47 properties have results less than ATSDR/ODH screening levels and laboratory detection limits (no further action)
- 83 properties have PCE/TCE detections, but results less than ATSDR/ODH screening levels and are eligible for seasonal resampling
- 13 properties have denied EPA access to conduct vapor intrusion sampling
- 23 properties are vacant and abandoned

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

EPA is investigating PRPs at the Site.

2.1.4 Progress Metrics

Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Disposal*
N/A					

2.2 Planning Section

2.2.1 Anticipated Activities

See below in Section 2.2.1.1.

2.2.1.1 Planned Response Activities

1. Continue to implement a Site Health and Safety Plan;

2. Conduct vapor intrusion sampling (for VOCs) and extent of contamination sampling utilizing groundwater, soil gas, sub-slab, and indoor air sampling techniques. The area of investigation includes the source area on the east near Hypathia Ave and Sagamore Ave on the west (approximately 1,500 feet southwest of the source area),

3. If the ATSDR/ODH Sub-Slab or Indoor Air Screening Level for a contaminant of concern (e.g., PCE or TCE) is exceeded for a residential structure, design and install a vapor abatement mitigation system in the structure impacted by subsurface gas migration. The abatement system will include installation of a VAS, sealing cracks in walls and floors of the basement, and sealing drains that could be a pathway. The vapor abatement mitigation system will be designed to control levels of VOCs to below ATSDR/ODH sub-slab and indoor air screening levels; and

4. Develop and implement a performance sample plan to confirm that ATSDR/ODH screening levels are achieved for contaminants of concern (PCE, TCE, etc) following installation of a VAS.

5. Complete October 2014 EPA Expanded Vapor Intrusion Investigation, interpret and analyze data.

2.2.1.2 Next Steps

1. Continue reaching out to residents in the neighborhood to obtain access agreements to conduct vapor intrusion sampling.

2. Continue vapor intrusion sampling in the residential neighborhood.

3. Generate sample result letters and schedule meetings with residents to discuss sampling results. If sample results are > ODH screening levels for residences, install VAS.

4. For residential properties where a VAS was installed, conduct 30-day post installation proficiency air sampling

2.2.2 Issues

To schedule vapor intrusion sampling, please visit or the call EPA project office located at:

EPA Project Office
2049 Harshman Road
Riverside, OH 45424
937.237.7530

Residential air sampling will resume the week of October 27, 2014.

2.3 Logistics Section

None.

2.4 Finance Section

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
ERRS - Cleanup Contractor	$1,200,000.00	$578,667.00	$621,333.00	51.78%
START - Weston	$50,000.00	$44,300.00	$5,700.00	11.40%
START - Tetra Tech	$150,000.00	$103,350.00	$46,650.00	31.10%
Intramural Costs				
USEPA - Direct	$144,000.00	$86,000.00	$58,000.00	40.28%
Total Site Costs	$1,544,000.00	$812,317.00	$731,683.00	47.39%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

2.5 Other Command Staff

2.5.1 Safety Officer

A safety plan has been completed, reviewed and signed by all personnel on site.

2.5.2 Liaison Officer

Periodic meetings conducted with OEPA, Public Health - Dayton & Montgomery County to update agencies on sample results.

Monthly meetings conducted with Riverside council members and Assistant City Manager.

2.5.3 Information Officer

EPA's Office of Public Affairs (Ginny Narsette - Community Involvement Coordinator)

has completed the following:
1. Set up the following website:

http://www.epa.gov/Region5/cleanup/valleypikevocsite/index.html

2. EPA's Office of Public Affairs went door-to-door during the week of March 17th and obtained 40+ signed access agreements.

3. Set up a repository containing site information. The repository is located at:

Dayton Metro Library
6160 Chambersburg Road
Huber Heights, OH 45424

6. EPA has set up a local project office to schedule sampling and to answer questions.

EPA Local Project Office
2049 Harshman Road (located next to Subway)
Riverside, OH 45424
937.237.7530

3. Participating Entities

3.1 Unified Command

N/A

3.2 Cooperating Agencies

Ohio EPA
Public Health - Dayton & Montgomery County
Ohio Department of Health
City of Riverside
ATSDR

4. Personnel On Site

EPA OSC - 1
START (Tetra Tech) - 1
ERRS - 2
At-Home Radon Contractor - VAS installer
Environmental Doctor Contractor - VAS installer

5. Definition of Terms

ATSDR - Agency for Toxic Substances and Disease Registry
IA - Indoor Air
MRP - Mullins Rubber Products
ODH - Ohio Department of Health
PCE - tetrachloroethylene
ppb - parts per billion
ppbv - parts per billion by volume
SS - sub-slab

TCE - trichloroethylene
VAS - Vapor Abatement System

6. Additional sources of information

6.1 Internet location of additional information/report

Additional site information can be found at the following EPA public website:

http://www.epa.gov/Region5/cleanup/valleypikevocsite/index.html

6.2 Reporting Schedule

POLREP #6 will be issued in December 2014.

7. Situational Reference Materials

None.


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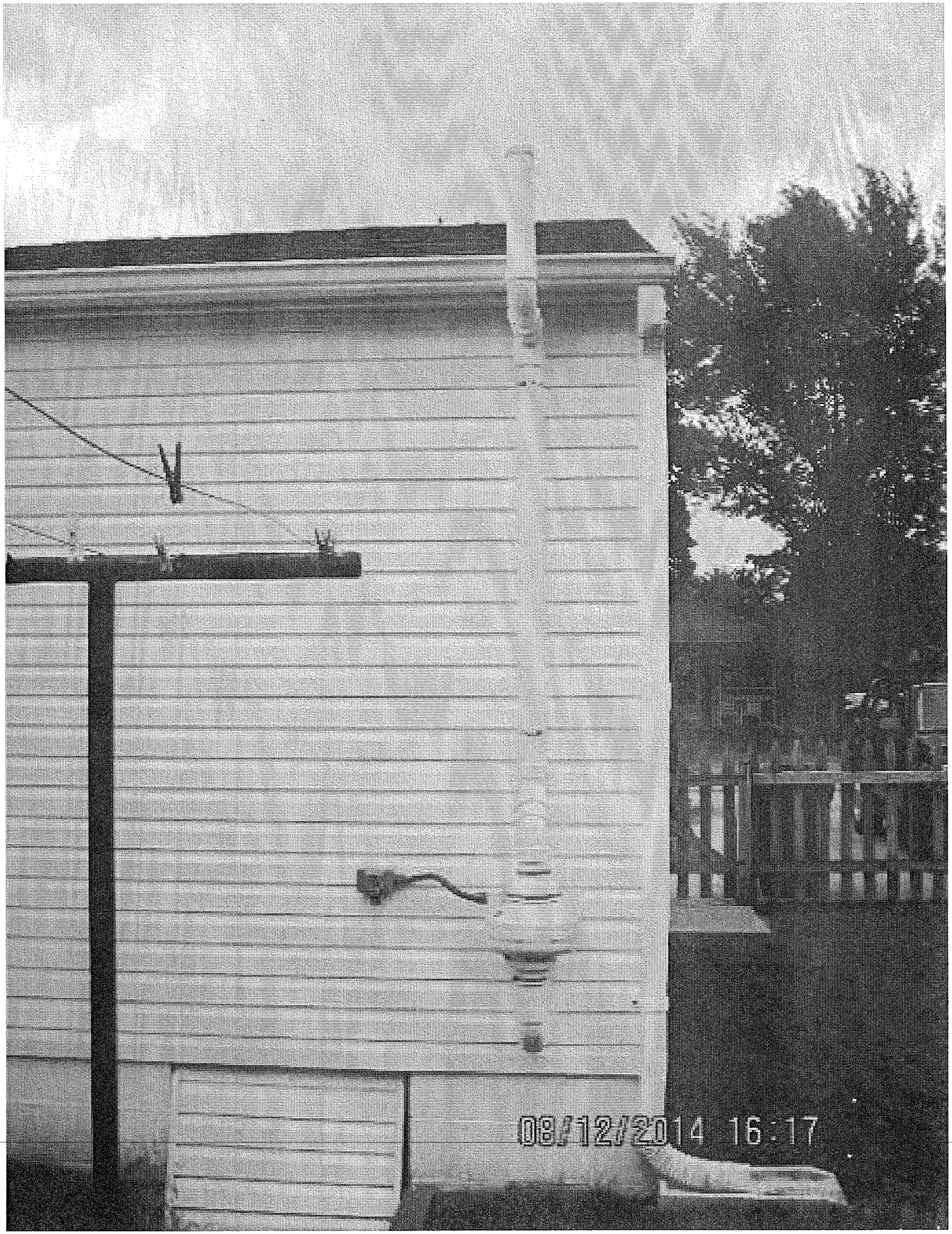
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